

FPB

71-1046

17 June 1971
SG-71/157

MEMORANDUM FOR: Executive Director-Comptroller

THROUGH : Chairman, Information Processing Board

SUBJECT : Upgrading of DDP Computer Central Processing Unit

1. This memorandum contains a recommendation in paragraph 9 for your approval.

2. With the implementation of the Main Index phase of the mechanization of the CS [REDACTED] the DDP plans to use two IBM System 370/155 Central Processing Units. The CPU's will be necessary to process the workload, to handle the large data base on new high capacity disk files and to provide backup for this system, the Document Control System and other operational projects.

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3. Planning up to this time has been that the present two 1410 Systems would be replaced by a 370/155 computer system this Fall and that the 360/50 CPU and its large core storage (LCS) would be replaced by a 370/155 CPU in January 1973. The present types of disk files would not be replaced until January 1973 since the new type will not operate with the 360/50 CPU, and compatibility is required between the two systems.

4. We now propose that the Agency owned 360/50 CPU be sold and replaced by a rental 370/155 1 August 1971--seventeen months ahead of our previous schedule. The new CPU will have 1.5 million bytes of core storage and a high speed console printer keyboard.

5. Early installation of the 370/155 will expedite release of the last 1410 and changeover to new disk files. Advancing these dates will provide a savings that will partially offset the cost of the new CPU. However, there will be a net increase to the DDP over present budget figures of \$400,000 of which \$261,000 will be in FY72 and \$139,000 in FY73. We can sell the 360/50 CPU to another agency for \$600,000 of FY72 funds. Allowing a residual value of \$200,000 (this is the best estimate we have been able to derive) for the CPU eighteen months from now will result in a net gain of \$400,000 to the Agency.

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It is understood that from a technical/financial standpoint that the \$600,000 would become part of the general Agency funds. It is assumed that \$400,000 of this \$600,000 could be used to defray the FY72 and FY73 fiscal increases mentioned above. If for some technical reason, this can not be achieved, it would be necessary that the FY72 obligating authority to the CS be increased by \$261,000 and the FY73 Office Estimates be raised by \$139,000.

6. Advantages to the CS of advancing this changeover by seventeen months are considerable:

- a. Provide for a better test and earlier cut-over of the programs which must still be emulated when the 1410's are released. Since the CPU to be acquired in August will have the emulator feature, these programs should be fully checked out and operational before the first 1410 is released.
- b. Enable us to advance the mechanization of the Main Index by 12-18 months by loading it on the new disk drives and repairing on line that segment which must be corrected. Conversion to the new disk drives 10 months earlier saves money and space, as well as providing greater capacity and capability.
- c. Provide needed computing power during very heavy debug loads through all FY72. During first half of FY73 there will probably be some excess capacity.
- d. Provide two compatible CPU's except for the emulator feature and core size. All programs (except those emulated) will run on either computer, and systems programming will be simplified.
- e. Provide a million bytes of high-speed core storage to replace an equal amount of slow-speed core storage.

7. The advanced schedule has been discussed with Headquarters Engineering Branch, RECD/OL. They indicate that this change along with plans of other computer centers will require coordination among the centers to provide "load-shedding" schedules should use of emergency power be necessary. They also state that for the RID computer center it will probably be necessary to install an additional air handler at a cost of under \$10,000. (Attachment B is a schedule of power and air conditioning requirements for the next year.)

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8. This sale of equipment by the Agency to another government agency has been discussed with Mr. [REDACTED], OGC/L., who advises us that it has been discussed with [REDACTED] Chief, Audit Staff, and Mr. [REDACTED] Deputy Chief, OGC. We have been advised by Mr. [REDACTED] that there is no legal reason why this sale cannot be made.

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9. Your approval is requested to sell the Agency-owned 360/50 CPU and console printer-keyboard on or about 1 August 1971 for \$600,000 in FY72 funds and to replace it with a rental IBM 370/155 CPU and console printer-keyboard.

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[REDACTED]
Chief, DDP/SG

Attachments A and B

cc: DDP

CONCUR:

[REDACTED]
Deputy Director for Plans

30 June 71
Date

[REDACTED]
Chairman, Information Processing Board

16 July 71
Date

APPROVED:

[REDACTED]
Executive Director-Comptroller

16 July 71
Date